

DESCRIPTION

The SE23T15B12A is a standard capacitance transient voltage suppressor array, designed to protect applications such as portable electronics and SMART phones. It is rated at 150 Watts for an 8/20μs waveshape.

The SE23T15B12A meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. The SE23T15B12A offers a low leakage current in a miniature SOT-23 package.

FEATURES

- >150 Watts Peak Pulse Power per Line (tp=8/20μs)
- >Ultra low leakage: uA level
- >Operating voltage: 12V
- >Low clamping voltage
- >Weight: 8.0mg

APPLICATIONS

- >RS-232, RS-422 & RS-423 Data Lines
- >Audio/Video Inputs
- >Wireless Network Systems
- >Microprocessor Based Equipment
- >Medical Sensors
- >Notebook Computers

IEC COMPATIBILITY

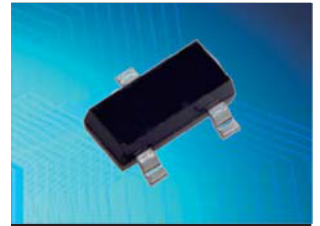
- >IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

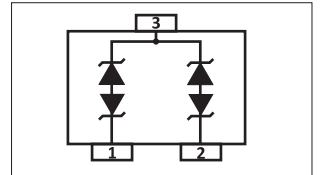
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20μs waveform)	PPP	150	Watts
Operating Temperature Range	TJ	-55~125	° C
Storage Temperature Range	TSTG	-55~150	° C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED

PART NUMBER	DEVICE MARKING	VRWM (V) Max.	VBR (V) Min.	IT (mA)	Vc @1A Max.	Vc (V) @ A		IR (uA) Max.	CT (pF) Max.
						Max.			
SE23T15B12A	CO12	12.0	13.3	1	19.0	26.0	5.0	0.2	15



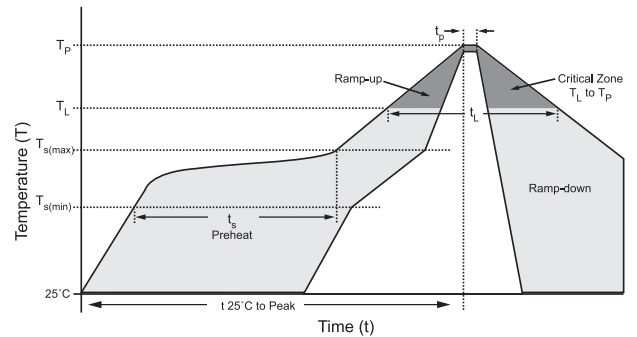
SOT-23 PACKAGE



PIN CONFIGURATIONS

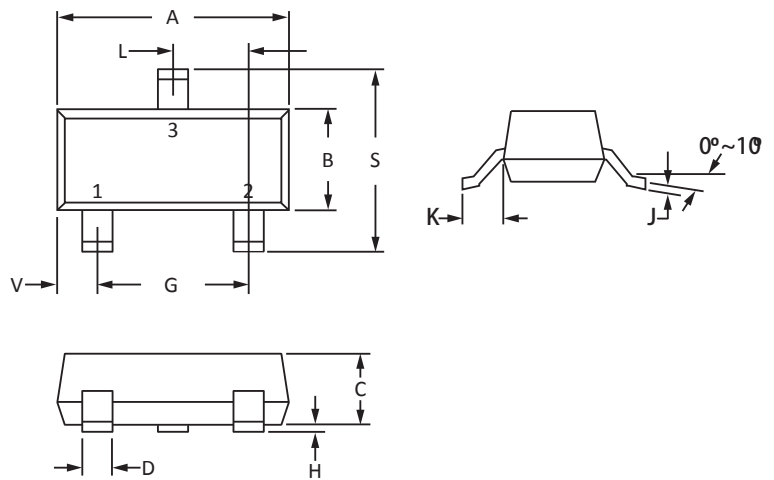
SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min (Ts(min))	150°C
	Temperature Max (Ts(max))	200°C
	Time (min to max) (ts)	60 – 180 secs
Average ramp up rate (Liquidus Temp (TL) to peak)		3°C/second max
Ts(max)to TL - Ramp-up Rate		3°C/second max
Reflow	Temperature (TL) (Liquidus)	217°C
	Time (min to max) (tl)	60 – 150 seconds
Peak Temperature (TP)		260°C
Time within 5°C of actual peak Temperature (tp)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (TP)		8 minutes Max.
Do not exceed		260°C



SOT-23 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.89	1.11	0.035	0.044
D	0.37	0.50	0.015	0.020
G	1.78	2.04	0.070	0.081
H	0.013	0.100	0.001	0.004
J	0.085	0.180	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.64	0.083	0.104
V	0.45	0.60	0.018	0.024

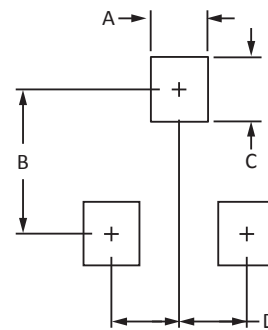


- NOTES
 1. Controlling dimension: inches.
 2. Dimensions are exclusive of mold flash and metal burrs.

RECOMMENDED PAD LAYOUT DIMENSION

PAD LAYOUT DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

- NOTES
 1. Controlling dimension: inches.



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